surrounding areas in ward no- 03 Yelahanka Satellite Town sub Division.

VSR CIVIL INFRA PVT. LTD.

Engineering project Consultants

VSR /BBMP/YNK/W.No.003-005/2019-20 **Date: 25/12/2020**

CERTIFICATE

Division: Yelahanka

Sub Division: Yelahanka satellite Town Sub division

Ward No: 003

Job Code No: 003-20-000079

Name of Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No-03 Yelahanka Stellite Town Sub division

Running Account Bill: 2nd and Part Bill

Value of work completed by Contractor Amount: Rs 7047154=00

This is to certify that all the Items of Works have been carried out as per Specifications and Conform to MORTH.

for VSR Civil Infra Pvt. Ltd.

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019.

(Authorized Signatory)

Project Management Consultants

ಸಹಾಯಕ ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

ABSTRCT FOR QUALITY CONTROL REPORTS

NAME OF WORK:	**Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division.**

Test details

SL NO	Item Executed	Name of tests	Quantity Executed	Unit	As per Frequency	Requried No of Tests	Actual No of Tests
1	GSB	GRADATION	1158.79	Cum	1 test /400 cum	4	4
		FIELD DENSITY			3 test /1000 sqm	4	4
2	WMM	GRADATION	1738.18	Cum	1 test /200 cum	9	9
		FIELD DENSITY			3 test /1000 sqm	6	6

VSS CIVIL INFRA PVT. LTD. BANGALORE 560 019

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬ.ಮಾ.ಪ. ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division.

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	22.12.2020
Type of Material	: GSB	Date of Testing	22.12.2020
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3250	3451	3162			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13261	13150	13314			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1889	2000	1836			
5	Volume of Hole V=W4/Ys cc	1378.93	1459.98	1339.84			
6	Bulk Density of material Yb = Ww / V gm/cc	2.357	2.364	2.360			
7	Water content, w(as per QC-2)	1.052	1.052	1.055			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.241	2.246	2.238			
9	compaction achieved =[yd / yd(lab)] x 100%	98.31	98.52	98.14			

Remarks :

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬ.ಬ.ಪಾ. ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division.

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	23.12.2020
Type of Material	: GSB	Date of Testing	23.12.2020
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3154	3265	3052			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13312	13255	13377			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1838	1895	1773			
5	Volume of Hole V=W4/Ys cc	1341.65	1382.91	1293.82			
6	Bulk Density of material Yb = Ww / V gm/cc	2.351	2.361	2.359			
7	Water content, w(as per QC-2)	1.051	1.053	1.054			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.238	2.242	2.238			
9	compaction achieved =[yd / yd(lab)] x 100%	98.15	98.33	98.16			

Remarks :

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division.

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	25.12.2020
Type of Material	: GSB	Date of Testing	25.12.2020
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3125	3168	3395			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13329	13309	13183			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1821	1841	1967			
5	Volume of Hole V=W4/Ys cc	1329.41	1344.02	1435.80			
6	Bulk Density of material Yb = Ww / V gm/cc	2.351	2.357	2.365			
7	Water content, w(as per QC-2)	1.052	1.053	1.055			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.236	2.238	2.242			
9	compaction achieved =[yd / yd(lab)] x 100%	98.05	98.16	98.32			

Remarks :

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GSB Graded-V

Purpose	GSB	Date of Sampling	16.12.2020
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	GSB	Date of Testing	16.12.2020
Location	at site	Tested by	PMC
		Weight of sample(gm) :	12965

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
75	0	0	0.00	100.00	100
53	1470	1470	11.37	88.63	80-100
26.5	2230	3700	28.54	71.46	55-90
9.5	1960	5660	43.66	56.34	35-65
4.75	2880	8540	65.87	34.13	25-50
2.36	2435	10975	84.65	15.35	10--20
0.85	1310	12285	94.76	5.24	2--10
0.425	145	12430	95.87	4.13	0-5

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultant representative | Contractor representative | Client Representative

ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.
#5523, 6th Main Road, Hanumanthanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division.

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GSB Graded-V

Purpose	GSB	Date of Sampling	17.12.2020
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	GSB	Date of Testing	17.12.2020
Location	at site	Tested by	PMC
		Weight of sample(gm) :	14410

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
75	0	0	0.00	100.00	100
53	250	250	1.74	98.26	80-100
26.5	5175	5425	37.65	62.35	55-90
9.5	3300	8725	60.55	39.45	35-65
4.75	1535	10260	71.20	28.80	25-50
2.36	1750	12010	83.34	16.66	10--20
0.85	1280	13290	92.23	7.77	2--10
0.425	620	13910	96.53	3.47	0-5

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE

Consultant representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	04.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	04.01.2021
Location	At Stackyard	Tested by	PMC
		Weight of sample(gm) :	13400

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	355	355	2.68	97.32	95--100
22.4	3330	3685	27.50	72.50	60--80
11.2	2260	5945	44.37	55.63	40--60
4.75	2560	8505	63.47	36.53	25--40
2.36	1500	10005	74.66	25.34	15--30
0.6	1205	11210	83.66	16.34	8--22
0.075	1365	12575	93.84	6.16	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	04.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	04.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	10200

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	340	340	3.37	96.63	95--100
22.4	2150	2490	24.41	75.59	60--80
11.2	2370	4860	47.65	52.35	40--60
4.75	1415	6275	61.52	38.48	25--40
2.36	1205	7480	73.33	26.67	15--30
0.6	780	8260	80.98	19.02	8--22
0.075	1470	9730	95.39	4.61	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE

Consultants representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	05.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	05.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	10895

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	225	225	2.11	97.89	95--100
22.4	2435	2660	24.41	75.59	60--80
11.2	2385	5045	46.31	53.69	40--60
4.75	1855	6900	63.33	36.67	25--40
2.36	1820	8720	80.04	19.96	15--30
0.6	480	9200	84.44	15.56	8--22
0.075	1090	10290	94.45	5.55	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative

Contractor representative

Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell :9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	06.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	06.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	11650

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	130	130	1.12	98.88	95--100
22.4	2830	2960	25.41	74.59	60--80
11.2	2590	5550	47.64	52.36	40--60
4.75	1735	7285	62.53	37.47	25--40
2.36	2020	9305	79.87	20.13	15--30
0.6	405	9710	83.35	16.65	8--22
0.075	1070	10780	92.53	7.47	0--8

Remarks : Test result is confirmed as per MoRTH specification

CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	06.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	06.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	12000

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	265	265	2.21	97.79	95--100
22.4	2535	2800	23.33	76.67	60--80
11.2	2920	5720	47.67	52.33	40--60
4.75	2120	7840	65.33	34.67	25--40
2.36	1760	9600	80.00	20.00	15--30
0.6	1200	10800	90.00	10.00	8--22
0.075	440	11240	93.67	6.33	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.
#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975
Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s KRIDL, Bangalore

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	07.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	07.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	12350

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	135	135	1.11	98.89	95--100
22.4	2335	2470	20.00	80.00	60--80
11.2	3415	5885	47.65	52.35	40--60
4.75	2495	8380	67.85	32.15	25--40
2.36	1485	9865	79.88	20.12	15--30
0.6	695	10560	85.51	14.49	8--22
0.075	1225	11785	95.43	4.57	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019.

Consultants representative | Contractor representative | Client Representative

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	13.01.2021
Type of Material	: WMM	Date of Testing	13.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3425	3165	3358			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13156	13317	13203			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1994	1833	1947			
5	Volume of Hole V=W4/Ys cc	1455.30	1338.09	1421.42			
6	Bulk Density of material Yb = Ww / V gm/cc	2.353	2.365	2.362			
7	Water content, w(as per QC-2)	1.052	1.053	1.055			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.237	2.246	2.240			
9	compaction achieved =[yd / yd(lab)] x 100%	98.12	98.52	98.26			

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019.

Consultants representative

Contractor representative

Client Representative

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	13.01.2021
Type of Material	: WMM	Date of Testing	13.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3056	3261	3385			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13372	13261	13192			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1778	1889	1958			
5	Volume of Hole V=W4/Ys cc	1297.67	1378.92	1428.96			
6	Bulk Density of material Yb = Ww / V gm/cc	2.355	2.365	2.369			
7	Water content, w(as per QC-2)	1.052	1.053	1.053			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.240	2.247	2.249			
9	compaction achieved =[yd / yd(lab)] x 100%	98.23	98.54	98.63			

Remarks : Test result is confirmed as per MoRTH specification

CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultants representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಎಂಜಿನಿಯರ ಕಚೇರಿ ಆಯುಕ್ತರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	14.01.2021
Type of Material	: WMM	Date of Testing	14.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3265	3395	3412			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13254	13176	13181			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1896	1974	1969			
5	Volume of Hole V=W4/Ys cc	1383.66	1440.77	1437.26			
6	Bulk Density of material Yb = Ww / V gm/cc	2.360	2.356	2.374			
7	Water content, w(as per QC-2)	1.054	1.050	1.055			
8	Dry density, [(100 yb) / (100+ w)] gm/cm3 yd =	2.240	2.244	2.251			
9	compaction achieved =[yd / yd(lab)] x 100%	98.23	98.41	98.74			

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019.

Consultants representative

Contractor representative

Client Representative

VSR Civil Infra Pvt. Ltd.

#552/B, 6th Main Road, Hanumantanagar, Cell : 9845230975

Bengaluru – 560 019.

Name Of The Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in Ward No - 03, Yelahanka Satellite Town Sub Division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd
Contractor:	: M/s KRIDL, Bangalore

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	15.01.2021
Type of Material	: WMM	Date of Testing	15.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3154	3265	3432			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13313	13255	13170			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1837	1895	1980			
5	Volume of Hole V=W4/Ys cc	1340.89	1383.44	1444.97			
6	Bulk Density of material Yb = Ww / V gm/cc	2.352	2.360	2.375			
7	Water content, w(as per QC-2)	1.051	1.053	1.056			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.238	2.242	2.249			
9	compaction achieved =[yd / yd(lab)] x 100%	98.15	98.32	98.62			

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE

Consultants representative

Contractor representative

Client Representative